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CARDIOVASCULAR FLASHLIGHT

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Huge left-ventricular pseudoaneurysm compressing coronary artery 10 weeks after stabbing attack

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A 27-year-old male patient was referred 10 weeks following a stab wound to his left chest, for which he underwent an emergency-thoracotomy to repair a left lung-laceration and penetrating left-ventricular injury at the time. After an initial unremarkable recovery, he now re-presented with features of heart failure (NYHA III) and sepsis for which i.v. antibiotic therapy was initiated for a methicillin-resistant *Staphylococcus aureus* (MRSA) that was isolated from his blood cultures 1 week prior to referral. Chest X-ray (Panel A; arrow) and computed tomography (Panels C and D and F–H) revealed a 9.2 × 8.7 cm left-ventricular pseudoaneurysm. To delineate the coronary anatomy prior to aneurysm repair, coronary angiography (CA) was performed which excluded any traumatic coronary artery injury, but revealed displacement and compression of a large first obtuse marginal branch by the pseudoaneurysm (Panel E; arrows). Owing to ongoing sepsis, the patient was scheduled for urgent surgery. Intra-operative transoesophageal-echocardiography excluded any additional intra-cardiac pathology, confirming an impressive pseudoaneurysm (Panel B; asterisk). The right subclavian artery and femoral vein was cannulated and cardiopulmonary bypass instituted before sternotomy. The pseudoaneurysm was found to be infected, contained by the left lung and perfused via the old injury in the lateral left-ventricular wall (Panels D, F, and G). After thorough debridement, the neck was closed using interrupted mattress-sutures reinforced with teflon felt. The patient made an uneventful further recovery and completed 4 weeks of vancomycin for the MRSA that was also isolated from the intra-operative specimens. This rare case of left ventricular aneurysm formation after penetrating cardiac injury illustrates the importance and the necessity of serial CT or magnetic resonance imaging (MRI) follow-up imaging in such patients to prevent late cardiac complications.

